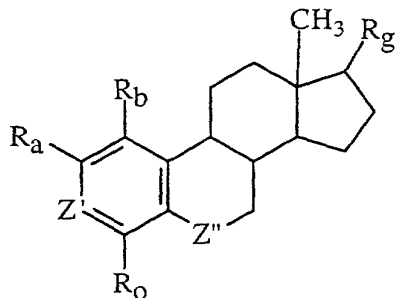


## CLAIMS

We claim:

1. A compound of the general formula:



wherein:

a)  $R_b$  and  $R_o$  are independently -H, -Cl, -Br, -I, -F, -CN, lower alkyl, -OH, -CH<sub>2</sub>-OH, -NH<sub>2</sub>; or N(R<sub>6</sub>)(R<sub>7</sub>), wherein R<sub>6</sub> and R<sub>7</sub> are independently hydrogen or an alkyl or branched alkyl with up to 6 carbons;

b)  $R_a$  is -N<sub>3</sub>, -C≡N, -N<sub>3</sub>, -C≡C-R, -C=CH-R, -R-C=CH<sub>2</sub>, -C≡CH, -O-R, -R-R<sub>1</sub>, or -O-R-R<sub>1</sub> where R is a straight or branched alkyl with up to 10 carbons or aralkyl, and R<sub>1</sub> is -OH, -NH<sub>2</sub>, -Cl, -Br, -I, -F or CF<sub>3</sub>;

c) Z' is >CH, >COH, or >C-R<sub>2</sub>-OH, where R<sub>2</sub> is an alkyl or branched alkyl with up to 10 carbons or aralkyl;

d) >C-R<sub>g</sub> is >CH<sub>2</sub>, >C(H)-OH, >C=O, >C=N-OH, >C(R<sub>3</sub>)OH, >C=N-OR<sub>3</sub>, >C(H)-NH<sub>2</sub>, >C(H)-NHR<sub>3</sub>, >C(H)-NR<sub>3</sub>R<sub>4</sub>, or >C(H)-C(O)-R<sub>3</sub>, where each R<sub>3</sub> and R<sub>4</sub> is independently an alkyl or branched alkyl with up to 10 carbons or aralkyl; and

e) Z'' is >CH<sub>2</sub>, >C=O, >C(H)-OH, >C=N-OH, >C=N-OR<sub>5</sub>, >C(H)-C≡N, or >C(H)-NR<sub>5</sub>R<sub>5</sub>, wherein each R<sub>5</sub> is independently hydrogen, an alkyl or branched alkyl with up to 10 carbons or aralkyl.

2. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,

$R_a$  is -C≡C-CH<sub>3</sub>,

Z' is >C-OH,

>C-R<sub>g</sub> is >C(H)-β-OH, and

Z'' is >CH<sub>2</sub>.

3. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $\text{OCH}_2\text{CF}_3$   
 $Z'$  is  $>\text{C}-\text{OH}$ ,  
 $>\text{C}-R_g$  is  $>\text{C}(\text{H})-\beta\text{-OH}$ , and  
 $Z''$  is  $>\text{C}=\text{O}$ .

4. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $\text{OCH}_2\text{CF}_3$   
 $Z'$  is  $>\text{C}-\text{OH}$ ,  
 $>\text{C}-R_g$  is  $>\text{C}(\text{H})-\beta\text{-OH}$ , and  
 $Z''$  is  $>\text{C}=\text{NOH}$ .

5. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $\text{OC}_2\text{H}_5$   
 $Z'$  is  $>\text{C}-\text{OH}$ ,  
 $>\text{C}-R_g$  is  $>\text{C}(\text{H})-\beta\text{-OH}$ , and  
 $Z''$  is  $>\text{CH}_2$ .

6. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $\text{OCH}_2\text{CF}_3$   
 $Z'$  is  $>\text{C}-\text{OH}$ ,  
 $>\text{C}-R_g$  is  $>\text{C}(\text{H})-\beta\text{-OH}$ , and  
 $Z''$  is  $>\text{CH}_2$ .

7. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $\text{CH}=\text{CH}_2$   
 $Z'$  is  $>\text{C}-\text{OH}$ ,  
 $>\text{C}-R_g$  is  $>\text{C}(\text{H})-\beta\text{-OH}$ , and  
 $Z''$  is  $>\text{CH}_2$ .

8. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $E\text{-CH}=\text{CHCH}_3$   
 $Z'$  is  $>\text{C}-\text{OH}$ ,  
 $>\text{C}-R_g$  is  $>\text{C}(\text{H})-\beta\text{-OH}$ , and  
 $Z''$  is  $>\text{CH}_2$ .

9. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $NHC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>CH_2$ .

10. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $NHCOCH_3$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>CH_2$ .

11. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>C=O$ .

12. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>OH$ .

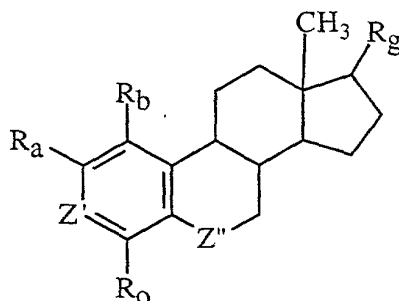
13. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>C=NOH$ .

14. The compound of Claim 1, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>C=NOCH_3$ .

15. A method of inhibiting angiogenesis comprising administering to an endothelial cell an angiogenesis inhibiting amount of a compound of the general formula:



wherein:

a)  $R_b$  and  $R_o$  are independently -H, -Cl, -Br, -I, -F, -CN, lower alkyl, -OH, -CH<sub>2</sub>-OH, -NH<sub>2</sub>; or N(R<sub>6</sub>)(R<sub>7</sub>), wherein R<sub>6</sub> and R<sub>7</sub> are independently hydrogen or an alkyl or branched alkyl with up to 6 carbons;

b)  $R_a$  is -N<sub>3</sub>, -C≡N, -N<sub>3</sub>, -C≡C-R, -C=CH-R, -R-C=CH<sub>2</sub>, -C≡CH, -O-R, -R-R<sub>1</sub>, or -O-R-R<sub>1</sub> where R is a straight or branched alkyl with up to 10 carbons or aralkyl, and R<sub>1</sub> is -OH, -NH<sub>2</sub>, -Cl, -Br, -I, -F or CF<sub>3</sub>;

c) Z' is >CH, >COH, or >C-R<sub>2</sub>-OH, where R<sub>2</sub> is an alkyl or branched alkyl with up to 10 carbons or aralkyl;

d) >C-R<sub>g</sub> is >CH<sub>2</sub>, >C(H)-OH, >C=O, >C=N-OH, >C(R<sub>3</sub>)OH, >C=N-OR<sub>3</sub>, >C(H)-NH<sub>2</sub>, >C(H)-NHR<sub>3</sub>, >C(H)-NR<sub>3</sub>R<sub>4</sub>, or >C(H)-C(O)-R<sub>3</sub>, where each R<sub>3</sub> and R<sub>4</sub> is independently an alkyl or branched alkyl with up to 10 carbons or aralkyl; and

e) Z'' is >CH<sub>2</sub>, >C=O, >C(H)-OH, >C=N-OH, >C=N-OR<sub>5</sub>, >C(H)-C≡N, or >C(H)-NR<sub>5</sub>R<sub>5</sub>, wherein each R<sub>5</sub> is independently hydrogen, an alkyl or branched alkyl with up to 10 carbons or aralkyl.

16. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,

$R_a$  is -C≡C-CH<sub>3</sub>,

Z' is >C-OH,

>C-R<sub>g</sub> is >C(H)-β-OH, and

Z'' is >CH<sub>2</sub>.

17. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OCH_2CF_3$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>C=O$ .

18. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OCH_2CF_3$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>C=NOH$ .

19. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>CH_2$ .

20. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OCH_2CF_3$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>CH_2$ .

21. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $CH=CH_2$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>CH_2$ .

22. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $E-CH=CHCH_3$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>CH_2$ .

23. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $NHC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>CH_2$ .

24. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $NHCOCH_3$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>CH_2$ .

25. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>C=O$ .

26. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>OH$ .

27. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>C=NOH$ .

28. The method of Claim 15, wherein :

$R_b$  and  $R_o$  are H,  
 $R_a$  is  $OC_2H_5$   
 $Z'$  is  $>C-OH$ ,  
 $>C-R_g$  is  $>C(H)-\beta-OH$ , and  
 $Z''$  is  $>C=NOCH_3$ .